

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-52. (Canceled)

53. (Canceled).

54-94. (Canceled)

95. (Currently amended) A process for treating textile fiber articles comprising the steps of :

a) contacting said articles in the course of a rinsing operation in aqueous or aqueous-alcoholic medium with ~~the~~ a rinsing formulation (F) at least one active substance comprising a solid organic polymer in particulate form and a vehicle comprising at least one organic polymer, capable of taking said active substance to the surface of said textile fiber articles in the rinsing operation , in the form of a stable dispersion, with a pH of from 2 to 5, of said active substance in an aqueous or aqueous-alcoholic medium comprising said vehicle, the active substance being insoluble in the aqueous or aqueous-alcoholic medium, having an overall zero or cationic charge in the aqueous or aqueous-alcoholic medium, and being stabilized in the aqueous or aqueous-alcoholic medium by means of a cationic surfactant; and the vehicle is soluble or dispersible in the aqueous or aqueous-alcoholic medium and in the rinsing medium, has an overall cationic or zero ionic charge in the aqueous or aqueous-alcoholic medium, and at the pH of the rinsing operation in the rinsing medium and is

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capable of developing anionic charges in sufficient quantity to destabilize the active substance in the rinsing medium, said organic polymer being:

acrylic acid/DADMAC copolymers, with a molar ratio of 50/50 to 30/70, optionally with a molar mass by weight of from 70 000 to 350 000 g/mol,

acrylic acid/MAPTAC copolymers, with a molar ratio of 60/40 to 30/70, optionally with a molar mass by weight of from 90 000 to 300 000 g/mol,

acrylic acid/MAPTAC/linear C₄-C₁₈ alkyl methacrylate terpolymers comprising 0.005 to 10% by mass of alkyl methacrylate, with an acrylic acid/MAPTAC molar ratio ranging from 60/40 to 30/70, and optionally having a molar mass by weight of from 50 000 to 250 000 g/mol, or

acrylic acid/dimethylaminoethyl methacrylate (DMAEMA) copolymers, with a molar ratio of 60/40 to 30/70, optionally with a molar mass by weight of from 50 000 to 300 000 g/mol

~~as defined in claim 53), and~~

b) recovering said rinsed articles.

96. (Currently amended) The process intended to enhance the antiwrinkle, easy-iron or soil release properties of textile fiber articles, comprising the steps of a) contacting said articles in the course of a rinsing operation in aqueous or aqueous-alcoholic medium with ~~the~~ a rinsing formulation ~~(F)~~ comprising:

at least one active substance comprising a solid organic polymer in particulate form and a vehicle comprising at least one organic polymer, capable of taking said active substance to the surface of said textile fiber articles in the rinsing operation , in the

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form of a stable dispersion, with a pH of from 2 to 5, of said active substance in an aqueous or aqueous-alcoholic medium comprising said vehicle, the active substance being insoluble in the aqueous or aqueous-alcoholic medium, having an overall zero or cationic charge in the aqueous or aqueous-alcoholic medium, and being stabilized in the aqueous or aqueous-alcoholic medium by means of a cationic surfactant; and the vehicle is soluble or dispersible in the aqueous or aqueous-alcoholic medium and in the rinsing medium, has an overall cationic or zero ionic charge in the aqueous or aqueous-alcoholic medium, and at the pH of the rinsing operation in the rinsing medium and is capable of developing anionic charges in sufficient quantity to destabilize the active substance in the rinsing medium, said organic polymer being: acrylic acid/DADMAC copolymers, with a molar ratio of 50/50 to 30/70, optionally with a molar mass by weight of from 70 000 to 350 000 g/mol, acrylic acid/MAPTAC copolymers, with a molar ratio of 60/40 to 30/70, optionally with a molar mass by weight of from 90 000 to 300 000 g/mol, acrylic acid/MAPTAC/linear C₄-C₁₈ alkyl methacrylate terpolymers comprising 0.005 to 10% by mass of alkyl methacrylate, with an acrylic acid/MAPTAC molar ratio ranging from 60/40 to 30/70, and optionally having a molar mass by weight of from 50 000 to 250 000 g/mol, or acrylic acid/dimethylaminoethyl methacrylate (DMAEMA) copolymers, with a molar ratio of 60/40 to 30/70, optionally with a molar mass by weight of from 50 000 to 300 000 g/mol

as defined in claim 53), and

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b) recovering said rinsed articles.

97. (Currently amended) The process according to Claim 96), wherein the solid active substance (~~A~~) in particulate form in the formulation (~~F~~) contains, encapsulated within ~~its~~ the particles of said active substance, at least one liquid or solid hydrophobic active substance (~~MAO~~) other than (~~A~~), and in that said process is further intended to confer on said textile fiber articles additional benefits intrinsic to said hydrophobic organic active substance (~~MAO~~).

98. (Currently amended) The process according to Claim 97), wherein said hydrophobic organic active substance (~~MAO~~) is a liquid or solid fragrance and in that said process is intended additionally to provide said textile fiber articles with fragrancing properties.

99. (Previously presented) The processes according to Claim 95), wherein the amount of formulation employed, expressed in terms of dry matter, is from 0.001 to 5 g/l, in the rinsing bath.

100. (New) The process according to Claim 95), wherein the amount of vehicle (V) present in said formulation is from 0.001 to 5 parts by weight, per 100 parts by weight of active substance (A).

101. (New) The process according to Claim 95), wherein the formulation is in the form of an aqueous or aqueous-alcoholic dispersion comprising per 100 parts of its weight:

from 0.01 to 40, parts by dry weight of active substance (A),

from 0.01 to 50, parts by dry weight of surfactant (TAC), and

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from 0.001 to 4, parts by dry weight of vehicle (V) polymer.

102. (New) The process according to Claim 95), wherein the rinsing medium has a pH of from 5.5 to 8.

103. (New) The process according to Claim 95), wherein the polymer constituting the active substance is:

- a) nonionic polymers derived from at least one nonionic hydrophobic monomer,
- b) copolymers derived from at least one nonionic hydrophobic monomer and at least one monomer which is cationic or potentially cationic in the aqueous or aqueous-alcoholic medium, and optionally at least one monomer which is neutral in the medium and potentially anionic in the rinsing medium, or
- c) copolymers derived from at least one nonionic hydrophobic monomer and at least one monomer which is neutral in the aqueous or aqueous-alcoholic medium and potentially anionic in the rinsing medium .

104. (New) The process according to Claim 103), wherein the monomer composition from which said polymer is derived further comprises:

- at least one noncharged or nonionizable hydrophilic monomer, optionally in an amount not exceeding 50% of the total mass of the monomers,
- at least one zwitterionic monomer, optionally in an amount not exceeding 30% of the total mass of the monomers, or
- at least one crosslinking monomer, optionally in an amount not exceeding 10% of the total mass of the monomers.

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105. (New) The process according to Claim 103), wherein the copolymer b) further comprises an anionic monomer whose first pKa is less than 3, in an amount sufficiently low that said copolymer b) has a cationic overall charge in the aqueous or aqueous-alcoholic medium.

106. (New) The process according to Claim 103), wherein, when said polymer constituting the active substance is an ionic or ionizable copolymer, the selection and relative amounts of monomers from which said copolymers are derived are such that the active substance:

is insoluble in the aqueous or aqueous-alcoholic medium,
exhibits a zero or cationic overall charge in the aqueous or aqueous-alcoholic medium, and
remains insoluble in the rinsing medium or is incapable of swelling by more than 8 times, preferably not more than 4 times, its volume in the rinsing medium.

107. (New) The process according to Claim 95), wherein the polymer constituting the active substance are in the form of particles having an average diameter ranging from 10 nm to 10 μ m.

108. (New) The process according to Claim 95), wherein the monomers from which the polymers constituting the active substance (A) are derived are α - β monoethylenically unsaturated or diethylenically unsaturated in the case of the crosslinking monomers.

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109. (New) The process according to Claim 95), wherein the selection and relative amounts of the monomer or monomers from which the polymer constituting the active substance are derived are such that said polymer has a glass transition temperature T_g of from -80°C to $+150^{\circ}\text{C}$.

110. (New) The process according to Claim 95), wherein the polymer constituting the active substance is insoluble in the aqueous or aqueous-alcoholic medium and in the rinsing medium, and is a polymer derived from at least one nonionic hydrophobic monomer or a copolymer derived from at least one nonionic hydrophobic monomer and from 0.1 to 20% of their weight of at least one monomer which is potentially cationic in the aqueous or aqueous-alcoholic medium.

111. (New) The process according to Claim 95), wherein the polymer constituting the active substance is an organic copolymer which is insoluble in the aqueous or aqueous-alcoholic medium with a pH of from 2 to 5, is capable of swelling in the rinsing medium with a pH of from 5.5 to 8, and is capable of dissolving in the washing bath during a subsequent washing operation at a pH of from 8.5 to 11.

112. (New) The process according to Claim 111), wherein said polymer constituting the active substance capable of swelling is a copolymer derived from at least one nonionic hydrophobic monomer and from 10 to 50% of its weight of at least one monomer which is potentially anionic in the rinsing medium.

113. (New) The process according to Claim 95), comprising a nonionic surfactant whose amount represents less than 70% of the weight of all of the surfactants.

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114. (New) The process according to Claim 95), having a ratio of the mass of polymer constituting the active substance to the mass of surfactants, of from 0.01 to 10.

115. (New) The process according to Claim 95), wherein the cationic charges generated by the optional cationic or potentially cationic units of the copolymer constituting the active substance and by the cationic surfactant or surfactants at the surface of the polymer constituting the active active substance in dispersion in the aqueous or aqueous-alcoholic medium are such that the zeta potential of said polymer or copolymer in dispersion in the aqueous or aqueous-alcoholic medium is from 0 to +50 mV.

116. (New) The process according to Claim 95), wherein the the aqueous or aqueous-alcoholic medium for the active substance is water or an aqueous-alcoholic polar medium.

117. (New) The process according to Claim 116, wherein the alcohol or alcohols present in the aqueous-alcoholic polar medium represent up to 70% of the volume of the aqueous or aqueous-alcoholic medium.